IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application: **Jones et al.**	§	
	§	
Serial No.: **09/888,473**	§	Group Art Unit: **2154**
	§	
Filed: **June 25, 2001**	§	Examiner: **Nguyen, Dustin**
	§	
For: **Method and Apparatus for Wide-**	§	Attorney Docket No.: **AUS920010398US1**
Spread Distribution of Electronic	§	
Content in a Peer to Peer Fashion		

35525

RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

A Notice of Non-Compliant Appeal Brief was received by Applicants stating that "the appeal brief filed on October 26, 2007 is considered non-compliant because the summary of the Appeal Brief does not comply with the rules since it does not contain a concise explanation of the subject matter defined in each of the independent claims or map the limitations of each of the independent claims to the specification or drawings". A copy of the Notice of Non-Compliant Appeal Brief is attached hereto.

No fees are believed to be required. If, however, any fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

In response to the Notification of Non-Compliant Appeal Brief dated December 12, 2007, please reconsider the holding of non-compliance as follows:

REMARKS

In the Notification of Non-Compliant Appeal Brief, the Appeal Brief filed on October 26, 2007, was held defective because the summary of the Appeal Brief does not comply with the rules since it does not contain a concise explanation of the subject matter defined in each of the independent claims or map the limitations of each of the independent claims to the specification or drawings.

In order to address the Examiner's concerns, a Supplemental Appeal Brief is submitted herewith. It is respectfully submitted that the Supplemental Appeal Brief filed herewith is in compliance with 37 C.F.R. § 41.37. Appellant respectfully requests that the Supplemental Appeal Brief be entered.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Date: January 2, 2008

Respectfully submitted,

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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,473	06/25/2001	Jeffrey Allen Jones	AUS920010398US1	8699

35525	7590	12/12/2007	

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EXAMINER

ART UNIT	PAPER NUMBER

DATE MAILED: 12/12/2007

Please find below and/or attached an Office communication concerning this application or proceeding.

Notification of Non-Compliant Appeal Brief (37 CFR 41.37)	

Application No.	Applicant(s)
09/888,473	JONES ET AL.
Examiner	**Art Unit**	
Dustin Nguyen	2154	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
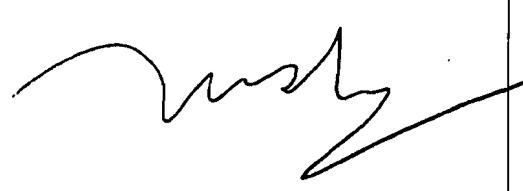
The Appeal Brief filed on <u>26 October 2007</u> is defective for failure to comply with one or more provisions of 37 CFR 41.37.

To avoid dismissal of the appeal, applicant must file an amended brief or other appropriate correction (see MPEP 1205.03) within **ONE MONTH or THIRTY DAYS** from the mailing date of this Notification, whichever is longer. **EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136.**

1. ☐ The brief does not contain the items required under 37 CFR 41.37(c), or the items are not under the proper heading or in the proper order.

2. ☐ The brief does not contain a statement of the status of all claims, (e.g., rejected, allowed, withdrawn, objected to, canceled), or does not identify the appealed claims (37 CFR 41.37(c)(1)(iii)).

3. ☐ At least one amendment has been filed subsequent to the final rejection, and the brief does not contain a statement of the status of each such amendment (37 CFR 41.37(c)(1)(iv)).

4. ☒ (a) The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters; and/or (b) the brief fails to: (1) identify, for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function under 35 U.S.C. 112, sixth paragraph, and/or (2) set forth the structure, material, or acts described in the specification as corresponding to each claimed function with reference to the specification by page and line number, and to the drawings, if any, by reference characters (37 CFR 41.37(c)(1)(v)).

5. ☐ The brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi))

6. ☐ The brief does not present an argument under a separate heading for each ground of rejection on appeal (37 CFR 41.37(c)(1)(vii)).

7. ☐ The brief does not contain a correct copy of the appealed claims as an appendix thereto (37 CFR 41.37(c)(1)(viii)).

8. ☐ The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner **and relied upon by appellant in the appeal**, along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix)).

9. ☐ The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(1)(x)).

10. ☒ Other (including any explanation in support of the above items):

<u>The Summary of the Appeal Brief is not comply with the rules since it does not contain a concise explanation of the subject matter defined in each of the independent claims or map the limitations of each of the independent claims to the specification or drawings.</u>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Jones et al.** §
§ Group Art Unit: **2154**
Serial No. **09/888,473** §
§ Examiner: **Nguyen, Dustin**
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Content in a Peer to Peer Fashion

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

35525
PATENT TRADEMARK OFFICE
CUSTOMER NUMBER

SUPPLEMENTAL APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Appeal Brief filed in this case on October 26, 2007 and the Notice of Non-Compliant Appeal Brief dated December 12, 2007.

No fees are believed to be required. If, however, any fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation of Armonk, New York.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS

A.   TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-19

B.   STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: 3 and 11
2. Claims withdrawn from consideration but not canceled: none
3. Claims pending: 1, 2, 4-10 and 12-19
4. Claims allowed: none
5. Claims rejected: 1, 2, 4-10 and 12-19
6. Claims objected to: none

C.   CLAIMS ON APPEAL

The claims on appeal are: 1, 2, 4-10 and 12-19

STATUS OF AMENDMENTS

No amendment after final rejection was filed for this case.

SUMMARY OF CLAIMED SUBJECT MATTER

A.   CLAIM 1 - INDEPENDENT

Claim 1 is generally directed to an improved technique for eliminating bottlenecks that arise when downloading content from a server. A peer-to-peer offloading technique is provided for offloading of demands on master servers to other clients which are downloading the same content.

Specifically, Claim 1 is directed to a method for distributing information in a computer network. An electronic file is divided into a plurality of pieces (Specification page 10, lines 15-18; Figure 4, element 401). All of these file pieces are downloaded to a plurality of client machines (Specification page 10, lines 18-19; Figure 4, block 402), where the client machines function as peer-to-peer servers for other client machines requesting the file pieces (Specification page 2, lines 7-10; page 3, lines 10-12; page 10, lines 7-10). Each of these peer-to-peer servers stores *a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers* (Specification page 10, lines 11-22; Figure 4, block 402). A request for a file piece is received from a first client machine, and the requested file piece is downloaded to this first client machine (Specification page 10, lines 23-29; Figure 4, blocks 403, 404 and 405). A request for this same file piece is received from a second client machine, and if the file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for the file piece from the first client machine, the request of the second client machine is redirected to the first client machine (Specification page 10, lines 23-32; Figure 4, blocks 403, 404 and 406). Redirecting the request for a given file piece to the first client machine advantageously allows for redirecting work away from the machine that originally provided the file piece by instead sending the work request to the first client, such that the first client can satisfy the request of the second client machine (Specification page 10, line 11 – page 11, line 13; Figure 4, all steps). In addition, *by processing requests for individual file pieces through such redirection, instead of processing requests for an entire file*, these claimed features advantageously provide for scattering or seeding of file pieces across a peer-to-peer environment such that the file pieces can be more efficiently processed by eliminating potential network bottlenecks (Specification page 10, lines 1-22).

B.   CLAIM 7 - INDEPENDENT

Claim 7 is directed to a method for distributing information in a computer network, including steps of (i) requesting one of a plurality of pieces of an electronic file by a first machine, wherein the electronic file is stored in a server (Specification page 10, lines 23-25), (ii) receiving the requested file piece from the server (Specification page 16, line 25), (iii) receiving, by the first machine, a request for a file piece by a second machine, where the request is conditionally redirected from the server to the first machine based upon whether the server has previously provided the file piece to the first machine (Specification page 16, lines 26-28), and (iv) sending, by the first machine, the file piece to the second machine (Specification page 16, line 29).   This method is from the perspective of a first machine which is different from the server and the second machine, where this first machine requests and receives content (the requested file *piece*), and then receives a request for a file piece, *the request being redirected from the server which previously supplied the content* to the first machine. This second redirected request is then fulfilled by the first machine that previously requested and received the file piece. Thus, Claim 7 advantageously provides that *a machine that has previously requested and received content (a file piece) is itself able to satisfy a subsequent request for this same content*, where the request for the content has been redirected by the server which originally provided the content – thus offloading work (requests for a file piece) that is directed to the server (Specification page 10, line 11 – page 11, line 13; Figure 4, all steps).

C.   CLAIM 8 - INDEPENDENT

Claim 8 is directed to a method for obtaining distributed information in a computer network. One of a plurality of pieces of an electronic file is requested by a first machine, where the electronic file is stored in a server (Specification page 10, lines 23-25). The requested file piece is received by the first machine, where the requested file piece is from a second machine that contains a copy of the file piece, the copy of the file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine (Specification page 10, line 11 – page 11, line 13; Figure 4, all steps). This claim advantageously provides an offload of server workload, as even though a request is made for a part of a file that is stored on the server, the requested file

piece is instead received from a *second machine that had <u>previously requested and received</u> the file <u>piece</u> from the server.*

D. CLAIM 9 – INDEPENDENT

Claim 9 is directed to a computer program product in a computer readable medium for use in a data processing system, for distributing information in a computer network (Specification page 13, line 25 – page 14, line 11). The computer program product includes instructions for dividing an electronic file into a plurality of file pieces (Specification page 10, lines 15-18; Figure 4, element 401). The computer program product also includes instructions for downloading all of the file pieces to a plurality of client machines (Specification page 10, lines 18-19; Figure 4, block 402), where the client machines function as peer-to-peer servers for other client machines requesting the file pieces (Specification page 2, lines 7-10; page 3, lines 10-12; page 10, lines 7-10). The computer program product also includes instructions for receiving a request for a file piece from a first client machine, and instructions for downloading the requested file piece to the first client machine (Specification page 10, lines 23-29; Figure 4, blocks 403, 404 and 405). The computer program product also includes instructions for receiving a request for the file piece from a second client machine, and instructions for redirecting the request of the second client machine to the first client machine if the file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for the file piece from the first client machine (Specification page 10, lines 23-32; Figure 4, blocks 403, 404 and 406).

E. CLAIM 15 – INDEPENDENT

Claim 15 is directed to a computer program product for distributing information in a computer network, the computer program product comprising instructions for execution by a second client machine (Specification page 13, line 25 – page 14, line 11). The computer program product includes instructions for requesting one of a plurality of pieces of an electronic file from a server, where the electronic file is stored in the server (Specification page 10, lines 23-25), and instructions for receiving the requested file piece from the server (Specification page 16, line 25). The computer program product also includes instructions for receiving a request for another file piece from a client machine, where the request for the file piece is conditionally redirected from

the server to the second client machine based upon whether the server has previously provided the other file piece to the second client machine (Specification page 16, lines 26-28). The computer program product also includes instructions for sending the other file piece to the client machine (Specification page 16, line 29).

F.   CLAIM 16 – INDEPENDENT

Claim 16 is directed to a computer program product for obtaining distributed information in a computer network, the computer program product comprising instructions for execution by a second client machine (Specification page 13, line 25 – page 14, line 11). The computer program product includes instructions for requesting one of a plurality of pieces of an electronic file from a server, where the electronic file is stored in the server (Specification page 10, lines 23-25). The computer program product also includes instructions for receiving, without further request of the requested file piece by the second machine, the requested file piece from a client machine containing a copy of the file piece in lieu of receiving the requested file piece from the server (Specification page 10, line 11 – page 11, line 13; Figure 4, all steps).

G.   CLAIM 17 – INDEPENDENT

Claim 17 is directed to a system for distributing information in a computer network, the system includes a dividing component which divides an electronic file into a plurality of file pieces (Specification page 10, lines 15-18; Figure 4, element 401). The system also includes a download component which downloads all of the file pieces to a plurality of client machines (Specification page 5, lines 14-23; Figure 1, elements 108, 110 and 112; Specification page 10, lines 18-19; Figure 4, block 402), where the client machines function as peer-to-peer servers for other client machines requesting the file pieces (Specification page 2, lines 7-10; page 3, lines 10-12; page 10, lines 7-10). Each peer-to-peer server stores a unique file piece of the file pieces which is not stored on other of the peer-to-peer servers (Specification page 10, lines 11-22; Figure 4, block 402). The system also includes a first receiver which receives a request for a file piece from a first client machine (Specification page 6, lines 26-29, Figure 2, element 218; Specification page 10, lines 23-25; Figure 4, block 403), a communications component which downloads the requested file piece to the first client machine (Specification page 10, lines 27-29; Figure 4, block 404) and a second receiver which receives a request for the file piece from a

second client machine (Specification page 6, lines 26-29, Figure 2, element 220; Specification page 10, lines 23-25; Figure 4, block 403). The system also includes a redirecting component which redirects the request of the second client machine to the first client machine if the file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for the file piece from the first client machine (Specification page 10, lines 23-32; Figure 4, blocks 403, 404 and 406).

H.   CLAIM 18 – INDEPENDENT

Claim 18 is directed to a system for distributing information in a computer network, the system includes a first component of a first machine which requests one of a plurality of pieces of an electronic file from a server, where the electronic file is stored in the server (Specification page 5, lines 14-23; Figure 1, element 108; Specification page 10, lines 23-25); and a second component of the first machine which (i) receives the requested file piece from the server (Specification page 16, line 25), (ii) receives a request for another file piece from a client machine, where the request for the another file piece is conditionally redirected from the server to the first machine based upon whether the server has previously provided the other file piece to the first machine (Specification page 16, lines 26-28), and (iii) sends the other file piece to the client machine (Specification page 16, line 29).

I.   CLAIM 19 – INDEPENDENT

Claim 19 is directed to a system for obtaining distributed information in a computer network, the system includes a communications component of a first machine requesting one of a plurality of pieces of an electronic file from a server, where the electronic file is stored in the server (Specification page 5, lines 14-23; Figure 1, element 108; Specification page 10, lines 23-25); and a receiver of the first machine which receives the requested file piece, without further request of the requested file piece by the first machine, from a second machine containing a copy of the file piece in lieu of receiving the requested file piece from the server, where the copy of the file piece on the second machine is the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine (Specification page 10, line 11 – page 11, line 13; Figure 4, all steps).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to review on appeal are as follows:

1.   Whether Claims 1 and 9-17 are non-statutory under 35 U.S.C. § 101; and

2.   Whether Claims 1, 2, 4-10 and 12-19 are obvious over Boykin (US Patent Application No. 2002/0078461) in view of Lutterschmidt (US Patent No. 6,356,947) under 35 U.S.C. § 103(a).

ARGUMENT

A.   GROUND OF REJECTION 1 (Claims 1 and 9-17)

Claims 1 and 9-17 stand rejected under 35 U.S.C. § 101 as being are non-statutory.

A.1.   Claims 9-16

Claims 9-16 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter, with the Examiner asserting that such claims fail to comply with MPEP 2106 with respect to the claimed "computer readable medium".

Claim 9 recites "A computer program product in a computer readable medium for use in a data processing system, for distributing information in a computer network, the computer program product" comprising various instructions for performing various acts in order to accomplish such information distribution in a computer network by the data processing system. Thus, this claim is not merely directed to a signal, as alleged by the Examiner. Instead, such claim recites functionally descriptive material ("instructions") in a computer-readable medium and thus becomes structurally and functionally interrelated to the medium, and therefore is statutory since use of this technology permits the function of the descriptive material to be realized. *In re* Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)[1]. Hence, Claim 9 (and dependent Claims 10-16) fully complies with the requirements specified in MPEP 2106.01(I) and judicial case law, and therefore these Claims 9-16 have been erroneously rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

A.2.   Claim 1, 9 and 17

Claims 1, 9 and 17 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter, with the Examiner stating with respect to such claims: "no usefulness of having made the determination can be realized". While the reasoning for this rejection is vague as not explicitly specifying how these claims fail to comply with 35 U.S.C. § 101, it appears the

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[1] The computer program product claim of Claim 9 is substantially different to the claim held to be non-statutory in *In re Petrus A.C.M. Nuijten*, Federal Circuit 2006-1371, which was a mere signal claim that did not recite a computer readable medium.

Examiner is taking the position that these claims fail to comply with the 'useful' aspect of 35 U.S.C. § 101 due to the Examiner's statement regarding 'no usefulness'. Appellants urge that according to 35 U.S.C. § 101: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title". The purpose of this "useful" requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research[2]. Appellants will now show that each of Claims 1, 9 and 17 are directed to either a "useful" process, machine, manufacture, or composition of matter, or any new and "useful" improvement thereof.

With respect to Claim 1, such claim recites:

> 1. A method for distributing information in a computer network, the method comprising:
> dividing an electronic file into a plurality of file pieces;
> downloading all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces, wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers;
> receiving a request for a file piece from a first client machine;
> downloading the requested file piece to the first client machine;
> receiving a request for said file piece from a second client machine; and
> if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine, redirecting the request of the second client machine to the first client machine.

The 'usefulness' of this claim is the distribution of information in a computer network. As a part of such distribution, an electronic file is divided into a plurality of file pieces. All of these file pieces are downloaded to a plurality of client machines – thus distributing information in a computer network, which is a useful function (information distribution in a computer network) that produces a tangible result (all of the file pieces are downloaded to a plurality of client

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[2] MPEP 2106(II)(A)

machines). These client machines function as peer-to-peer servers for other client machines requesting the file pieces – another useful function, particularly when viewed in light of the fact that such peer-to-peer functionality is at least partially enabled by the downloading of the file pieces to the client machines, as they can now process requests for file pieces as peer-to-peer servers. A request for a file piece is receiving from a first client machine, and the requested file piece is downloaded to the first client machine – thus distributing information in a computer network, which is another useful function (a requested file piece is downloaded to the first client machine) that produces a tangible result (requested file piece is downloaded to the first client machine). In additional, a conditional redirection of a request for this same file piece that is received from a second client machine occurs if this second client machine requested file piece has previously been downloaded to the to the first client machine responsive to the request for said file piece from the first client machine – thus conditionally redirecting such request, which is another useful function. It is thus urged that Claim 1 is in fact directed to a useful process, and thus complies with 35 U.S.C. § 101.

It is further shown that Claim 1 does not fall within a judicial exception, as such claim is not merely directed to a law of nature, natural phenomenon or abstract idea, but instead is specifically directed to a method for distributing information in a computer network, and expressly recites a plurality of client machines and a computer network. Therefore, Claim 1 has been erroneously rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

With respect to Claim 9, such claim is directed to a useful manufacture, and thus is statutory under 35 U.S.C. § 101. For example, Claim 9 recites:

> 9.   A computer program product in a computer readable medium for use in a data processing system, for distributing information in a computer network, the computer program product comprising:
>   instructions for dividing an electronic file into a plurality of file pieces;
>   instructions for downloading all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces, wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers;
>   instructions for receiving a request for a file piece from a first client machine;

instructions for downloading the requested file piece to the first client machine;

instructions for receiving a request for said file piece from a second client machine; and

instructions for redirecting the request of the second client machine to the first client machine if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine.

This form of claim is explicitly allowed pursuant to MPEP 2106.01(I) and *In re Lowry, Id.,* as previously described above in Section A.1. Further, this claim is directed to a useful manufacture (a computer program product in a computer readable medium for use in a data processing system), which is one of the expressly enumerated categories of allowable subject matter pursuant to 35 U.S.C. § 101. In addition, this claim does not fall within a judicial exception, as such claim is not merely directed to a law of nature, natural phenomenon or abstract idea. Therefore, Claim 9 has been erroneously rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

With respect to Claim 17, such claim is directed to a useful machine, and thus is statutory under 35 U.S.C. § 101. For example, Claim 17 recites:

17. A system for distributing information in a computer network, the system comprising:

a dividing component which divides an electronic file into a plurality of file pieces;

a download component which downloads all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces, wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers;

a first receiver which receives a request for a file piece from a first client machine;

a communications component which downloads the requested file piece to the first client machine;

a second receiver which receives a request for said file piece from a second client machine; and

a redirecting component which redirects the request of the second client machine to the first client machine if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine.

As can be seen, this claim recites a plurality of parts/devices/components, including (i) a dividing component which divides an electronic file into a plurality of file pieces, (ii) a download component which downloads all of said file pieces to a plurality of client machines, (iii) a first receiver which receives a request for a file piece from a first client machine, (iv) a communications component which downloads the requested file piece to the first client machine, (v) a second receiver which receives a request for said file piece from a second client machine, and (vi) a redirecting component which redirects the request of the second client machine to the first client machine if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine – and all of these parts/devices synergistically provide a system for distributing information in a computer network. The Supreme Court has defined the term "machine" as a concrete thing, consisting of parts, or of certain devices and combination of devices. *Burr v. Duryee*, 68 U.S. (1 Wall.) 531, 570 (1863), *In re Petrus A.C.M. Nuijten*, Federal Circuit 2006-1371. Claim 17 certainly complies with this U.S. Supreme Court sanctioned definition. Thus, Claim 17 is directed to a useful machine (as explained above), which is one of the expressly enumerated categories of allowable subject matter pursuant to 35 U.S.C. § 101, and such claim does not fall within a judicial exception, as such claim is not merely directed to a law of nature, natural phenomenon or abstract idea. Therefore, Claim 17 has been erroneously rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

B.   GROUND OF REJECTION 2 (Claims 1, 2, 4-10 and 12-19)

Claims 1, 2, 4-10 and 12-19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Boykin (US Patent Application No. 2002/0078461) in view of Lutterschmidt (US Patent No. 6,356,947).

B.1.   Claims 1, 9 and 17

Claim 1 recites steps of "dividing an electronic file into a plurality of file pieces" and "downloading all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces, wherein each peer-to-peer server stores *a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers*". As can be seen, an electronic file is divided into a

plurality of file pieces, and different ones of these file pieces are downloaded to a plurality of client machines which function as peer-to-peer servers, where *each peer-to-peer server stores a unique file piece which is not stored on other of the peer-to-peer servers*. These claimed features advantageously provide for scattering or seeding of file pieces across a peer-to-peer environment such that the file pieces can be more efficiently processed by eliminating potential network bottlenecks (Specification page 10, lines 1-22). The potential bottleneck elimination is provided since, instead of copying the entire file to multiple different servers was done in the past, each peer-to-peer server stores *a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers.*

In rejecting Claim 1, the Examiner states that the cited Boykin reference teaches the claimed 'dividing' step at Figure 5; Abstract; and paragraphs 0033 and 0038 and all of the features of the claimed 'downloading' step at Figure 2; Figure 4; Abstract; and paragraphs 0004, 0029, 0032- 0036, 0038 – and in particular with regards to the claimed 'unique file piece', the Examiner alleges such feature is taught by Boykin at Figure 2; and paragraphs 0032, 0034 and 0036. It is urged that the teachings of Boykin suffer from the same teaching deficiency that was previously identified in the previous appeal of these claims using a different cited reference to Scott. Specifically, Boykin does not teach "wherein each peer-to-peer server stores *a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers*", as Boykin expressly teaches:

> "A file is divided into a plurality of segments. *Each segment* is transmitted to the
> storage devices of *several of said hosts* and stored in said storage device of said
> host" (Boykin Abstract, lines 3-6).

As can be seen per the teachings of Boykin, *each* of the plurality of segments is transmitted to *several hosts*. The primary premise of the Boykin teachings is the use of incasting, where fragments *of multiple copies* of a file are gathered together to generate a single copy of the file (page 3, paragraph 0030, lines 10-12). In doing so, there is a format for creating and storing *multiple copies of the files* (page 3, paragraph 0030, lines 12-13). Such incasting addresses a key technological issue of how to provide a high-quality service in terms of both accuracy and speed

for transferring a requested file to a client (page 4, paragraph 0031, lines 1-4). In doing so, the *same content* or *file can reside in* *several different servers* *in the data processing system* (page 4, paragraph 0031, lines 5-7). Because Boykin's teachings are keen on providing such an incasting system where multiple copies of content are stored on multiple different servers, a person of ordinary skill in the art would not have been motivated to modify such teachings in accordance with the claimed features of Claim 1 where each peer-to-peer server stores *a unique file piece of the plurality of file pieces which is not stored on other of the peer-to-peer servers*. Thus, it is urged that, contrary to the Examiner's assertion, the cited Boykin reference does not teach or otherwise the claimed feature of "downloading all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces, *wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers*". Thus, Claim 1 has been erroneously rejected as the Examiner has failed to properly establish a prima facie showing of obviousness with respect to Claim 1[3].

It should also be noted that while the cited Boykin reference alludes to a unique identification tag for each content/file, such tag should not be confused with the claimed unique file piece, as the claimed unique file piece in one of many file pieces that results from dividing an electronic file into a plurality of individual pieces. While the Boykin identification tag may be used to identify such an individual file piece, the Boykin identification tag is not equivalent to the claimed unique file piece as it is not one of many resulting pieces of an electronic file that was dividing, as claimed. Boykin explicitly teaches a content list containing these identification tags of all content, and for each content/file it lists *all of the* *servers* *that contain a copy of the file* (page 4, paragraph 0032, lines 7-11). Thus, Boykin explicitly teaches that there a *multiple copies* of the content/files.

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[3] In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. *Id.* To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. MPEP 2143.03. *See also, In re Royka*, 490 F.2d 580 (C.C.P.A. 1974). If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

Still further, even if one were to erroneously interpret the Boykin 'identifier' to be equivalent to the claimed 'unique file piece', Boykin expressly states that *these identifiers are contained in lists that are contained on multiple servers* (page 4, paragraph 0032, lines 5-11), and thus does not teach *"wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers"*, even if one were to erroneously interpret the Boykin identifier to be equivalent to the claimed unique file piece. Thus, it is further urged that Claim 1 is not obvious in view of the cited references.

B.2.   Claims 7, 15 and 18

With respect to Claim 7, such claim recites:

requesting, by a *first machine*, one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server;

receiving, by the *first machine*, the requested file piece from the server;

receiving, by the *first machine*, a request for another file piece from a second machine, wherein the request for said another file piece is conditionally redirected from the server to the first machine based upon whether the server has previously provided said another file piece to the first machine".

As can be seen, the *first machine* which requests and receives one of a plurality of pieces of an electronic file *itself* receives a request for a (another) file piece, and such request is conditionally redirected from the server to this *first machine* based upon whether the server has previously provided this another file piece to this *first machine*.

In rejecting Claim 7, the Examiner merely relies upon the reasoning given with respect to Claim 1 in such rejection of Claim 7. In rejecting Claim 1, the Examiner states that the requesting and receiving of a file piece by a first machine is taught by Boykin's Abstract and paragraphs 0030, 0035 and 0037 (see bottom of page 4 of the most recent Office Action dated May 31, 2007). There, Boykin describes that clients (Figure 2, element 5a) request and receive a requested content/file. Importantly, these client devices do not themselves receive or otherwise process requests for content/files as required per the features of Claim 7. They are merely requestors of data – not suppliers of data. Per the features of Claim 7, the same first machine that requests and receives a requested file piece *itself receives a request for a file piece* (as redirected by a server). None of the cited references teach a *first machine* that (1) requests

and receives a file piece from a server *and in addition* also (2) receives requests for a file piece (as redirected by a server), nor has the Examiner alleged any such teaching or suggestion. Thus, Claim 7 has been erroneously rejected as a proper prima facie case of obviousness has not been established by the Examiner.
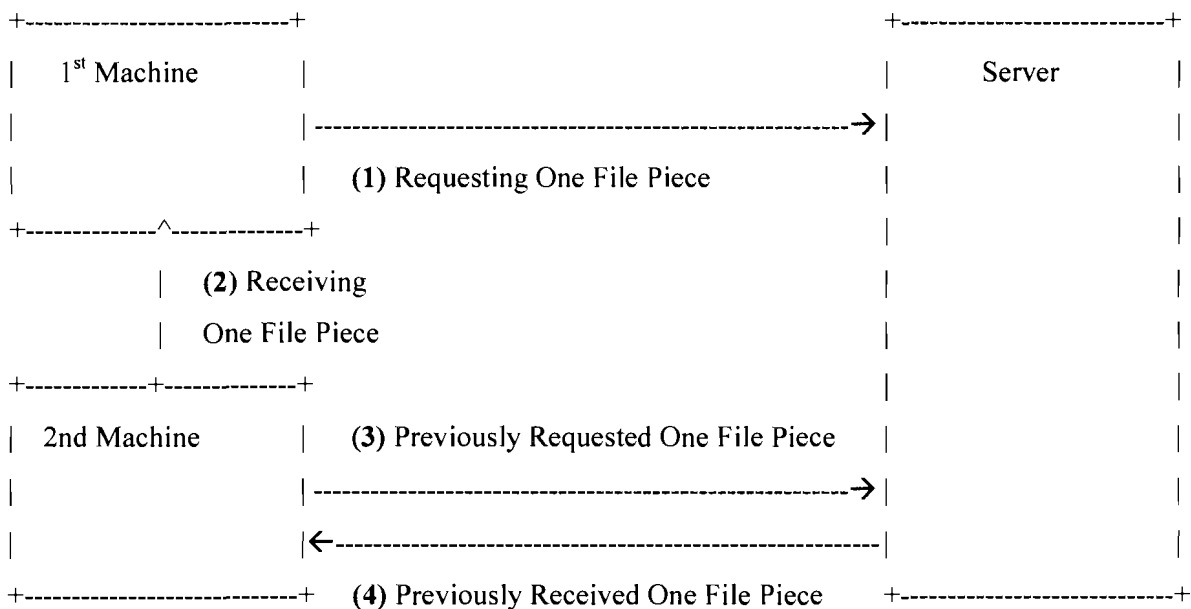
B.3.   Claims 8, 16 and 19

With respect to Claim 8, such claim recites "requesting, by a first machine, one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server" and "receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server, the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine". As can be seen, a first machine requests one of a plurality of pieces of an electronic file from a server, where the electronic file is stored on the server. This same first machine - the one that requested the file piece from the server - receives the requested file piece from a different device/machine (second machine) than the one for which the first machine requested the file piece from (server). In addition, the second machine (for which the file piece is actually received from by the requesting first machine, in lieu of being received from the requested server) has a copy of this file piece as a result of this second machine itself having requested the file piece from the server. In rejecting Claim 8, the Examiner acknowledges that the cited Boykin reference does not teach this claimed 'receiving' step, but states that the cited Lutterschmidt reference teaches all features of this claimed 'receiving' step at Figure 3 and col. 7, lines 1-31. As a prelude to this cited passage, it is noted that this cited reference teaches at col. 6, lines 53-58 that a client node C1 sends a request for content to central server node AS (col. 6, lines 59-61). So according to this cited passage when viewed against the claimed 'requesting' step of Claim 8, the claimed 'first machine' must be being equated with Lutterschmidt's 'client node C1', and the claimed 'server' must be being equated with Lutterschmidt's 'central server node AS'. However, Lutterschmidt's 'central server node AS'/server did not previously provide a copy of this same requested content to another client node (the claimed second client machine) which is now providing this requested content to the first machine/client node. Instead, such content is provided by yet another server (content server node CONTS1, as shown in Figure 3). In contrast, per the features of Claim 1, "the copy of said file piece on the second machine *being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine*". Quite simply, none of the cited references teach a server that in

one instance provides content to a requesting client ('from the server to the second machine'), and another machine (first machine) sends a request to this *same server* and *instead* receives the content from a different machine (second machine) for which this same server previously provided a copy to. Thus, it is urged that Claim 8 has been erroneously rejected as a proper prima facie showing of obviousness has been not established by the Examiner.

This distinction is perhaps more readily apparent when viewed in graphical form.

(1) requesting, by a first machine, one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server"

```
+------------------------+                                                      +------------------------+
|   1st Machine          |                                                      |       Server           |
|                        | ------------------------------------------------->  |                        |
|                        |      (1) Requesting One File Piece                   |                        |
+--------------^---------+                                                      |                        |
              |  (2) Receiving                                                  |                        |
              |  One File Piece                                                 |                        |
+-------------+----------+                                                      |                        |
|   2nd Machine          |    (3) Previously Requested One File Piece           |                        |
|                        | ------------------------------------------------->  |                        |
|                        | <------------------------------------------------   |                        |
+------------------------+    (4) Previously Received One File Piece            +------------------------+
```

(2) receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server, the copy of said file piece on the second machine being the result of a (3) previous request for the file piece from the second machine to the server and (4) receipt of the file piece from the server to the second machine". Lutterschmidt's central server node AS (Figure 1, element 50; Figure 3, AS), which receives a request from a client for content and thus is equivalent to the claimed 'server' recited in Claim 8 (as such claim recites "requesting, by a first machine, one of a plurality of pieces of an electronic file from a server"), does not provide any type content in response to a request for content, as per features (3) and (4) identified above.

In alternative interpretation, if Lutterschmidt's content server node (Figure 1, element 60) were construed to be equivalent to the claimed 'server' and data server nodes SS1-SS4 where considered to be the first and second machines, requests from such data server nodes SS1-SS4 to the content server nodes CONTS1 and CONTS2 are not fulfilled by a different machine that the one that requested content – i.e. there is no effective redirection of the request by these data servers to the content server nodes. Instead, the content requested by the SS1 is directly provided by the content server node for which the request was directed to (col. 5, lines 7-11; Figure 3, request RL(CONT) and supplied content CONT).

Thus, even in an alternative interpretation where Lutterschmidt's server blocks SS1-SS4 are interpreted to be requesting machines, there is no teaching or suggestion of the claimed feature of "receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece *in lieu of receiving the requested file piece from the server*, the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine". Thus, it is urged that a proper prima facie showing of obviousness has not been established with respect to Claim 8, and thus this claim has been erroneously rejected under 35 U.S.C. § 103(a) due to such prima facie deficiency.

Appellants have thus shown numerous errors in the Examiner's final rejection of all pending claims, and accordingly request this Board to reverse such final rejection of all such claims.

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CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1.   A method for distributing information in a computer network, the method comprising:

dividing an electronic file into a plurality of file pieces;

downloading all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces, wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers;

receiving a request for a file piece from a first client machine;

downloading the requested file piece to the first client machine;

receiving a request for said file piece from a second client machine; and

if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine, redirecting the request of the second client machine to the first client machine.

2.   The method according to claim 1, further comprising:

if said file piece requested from the second client machine has not previously been downloaded to the first client machine, processing the request for said file piece from the second client machine by a server which maintains a complete copy of the electronic file in lieu of redirecting the request of the second client machine to the first client machine.

4.   The method according to claim 2, further comprising:

receiving a request for a file piece stored in a first peer-to-peer server which is no longer

connected to the computer network;

redirecting said request to a second peer-to-peer server containing a copy of said file

piece; and

removing the first peer-to-peer server from a list of available peer-to-peer servers.

5.   The method according to claim 2, further comprising:

sending a digest for a given file piece to each client machine which has received the given

file piece; and

determining whether said given file piece is corrupted using the digest.

6.   The method according to claim 5, further comprising:

receiving a message from a client, wherein the message indicates that a peer-to-peer

server has corrupted said given file piece;

disconnecting the peer-to-peer server responsible for corrupting said given file piece; and

retransmitting said given file piece to said client, wherein the retransmitted file piece is

free of any corrupting content.

7.   A method for distributing information in a computer network, the method comprising:

requesting, by a first machine, one of a plurality of pieces of an electronic file from a

server, wherein the electronic file is stored in the server;

receiving, by the first machine, the requested file piece from the server;

receiving, by the first machine, a request for another file piece from a second machine, wherein the request for said another file piece is conditionally redirected from the server to the first machine based upon whether the server has previously provided said another file piece to the first machine; and then

sending, by the first machine, said another file piece to said second machine.

8.　A method for obtaining distributed information in a computer network, the method comprising:

requesting, by a first machine, one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server;

receiving, by the first machine and without further request of the requested file piece by the first machine, the requested file piece from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server, the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine.

9.　A computer program product in a computer readable medium for use in a data processing system, for distributing information in a computer network, the computer program product comprising:

instructions for dividing an electronic file into a plurality of file pieces;

instructions for downloading all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting

said file pieces, wherein each peer-to-peer server stores a unique file piece of said file pieces

which is not stored on other of the peer-to-peer servers;

instructions for receiving a request for a file piece from a first client machine;

instructions for downloading the requested file piece to the first client machine;

instructions for receiving a request for said file piece from a second client machine; and

instructions for redirecting the request of the second client machine to the first client

machine if said file piece requested from the second client machine has previously been

downloaded to the first client machine responsive to the request for said file piece from the first

client machine.

10.   The computer program product according to claim 9, further comprising:

instructions for instructions for processing the request for said file piece from the second

client machine by a server which maintains a complete copy of the electronic file, in lieu of

redirecting the request of the second client machine to the first client machine, if said file piece

requested from the second client machine has not previously been downloaded to the first client

machine.

12.   The computer program product according to claim 10, further comprising:

instructions for receiving a request for a file piece stored in a first peer-to-peer server

which is no longer connected to the computer network;

instructions for redirecting said request to a second peer-to-peer server containing a copy of said file piece; and

instructions for removing the first peer-to-peer server from a list of available peer-to-peer servers.

13. The computer program product according to claim 10, further comprising:

instructions for sending a digest for a given file piece to each client machine which has received the given file piece; and

instructions for determining whether said given file piece is corrupted using the digest.

14. The computer program product according to claim 13, further comprising:

instructions for receiving a message from a client, wherein the message indicates that a peer-to-peer server has corrupted said given file piece;

instructions for disconnecting the peer-to-peer server responsible for corrupting said given file piece; and

instructions for retransmitting said given file piece to said client, wherein the retransmitted file piece is free of any corrupting content.

15. A computer program product for distributing information in a computer network, the computer program product comprising instructions for execution by a second client machine, including:

instructions for requesting one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server;

instructions for receiving the requested file piece from the server;

instructions for receiving a request for another file piece from a client machine, wherein the request for said file piece is conditionally redirected from the server to the second client machine based upon whether the server has previously provided said another file piece to the second client machine; and

instructions for sending said another file piece to said client machine.

16.   A computer program product for obtaining distributed information in a computer network, the computer program product comprising instructions for execution by a second client machine, including:

instructions for requesting one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server;

instructions for receiving, without further request of the requested file piece by the second machine, the requested file piece from a client machine containing a copy of said file piece in lieu of receiving the requested file piece from the server.

17.   A system for distributing information in a computer network, the system comprising:

a dividing component which divides an electronic file into a plurality of file pieces;

a download component which downloads all of said file pieces to a plurality of client machines, wherein the client machines function as peer-to-peer servers for other client machines requesting said file pieces, wherein each peer-to-peer server stores a unique file piece of said file pieces which is not stored on other of the peer-to-peer servers;

a first receiver which receives a request for a file piece from a first client machine;

a communications component which downloads the requested file piece to the first client machine;

a second receiver which receives a request for said file piece from a second client machine; and

a redirecting component which redirects the request of the second client machine to the first client machine if said file piece requested from the second client machine has previously been downloaded to the first client machine responsive to the request for said file piece from the first client machine.

18.   A system for distributing information in a computer network, the system comprising:

a first component of a first machine which requests one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server; and

a second component of the first machine which receives the requested file piece from the server, receives a request for another file piece from a client machine, wherein the request for said another file piece is conditionally redirected from the server to the first machine based upon whether the server has previously provided the another file piece to the first machine, and

sends said another file piece to said client machine.

19.   A system for obtaining distributed information in a computer network, the system comprising:

a communications component of a first machine requesting one of a plurality of pieces of an electronic file from a server, wherein the electronic file is stored in the server;

a receiver of the first machine which receives the requested file piece, without further request of the requested file piece by the first machine, from a second machine containing a copy of said file piece in lieu of receiving the requested file piece from the server, the copy of said file piece on the second machine being the result of a previous request for the file piece from the second machine to the server and receipt of the file piece from the server to the second machine.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.